

# *Retirement village contribution to housing, employment, and GDP in New Zealand*

*Retirement Villages  
Association*

*March 2018*

A report for the New Zealand  
retirement village industry



***Final report***

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7 March 2018

Dear Graham,

**Retirement village contribution to housing, employment, and GDP in New Zealand**

We are pleased to provide our final report on how the retirement village industry in New Zealand makes a crucial contribution to the supply of housing.

This report provided in accordance with our terms of engagement dated 15 September 2017, and are subject to the Restrictions set out in Appendix 4.

Yours sincerely

A handwritten signature in black ink, appearing to read 'David Walker', with a long horizontal stroke extending to the right.

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# 1. Review highlights



Currently, there are an estimated **30,000 retirement village units** (excluding Own Your Own units) across New Zealand. This includes **25,000 Independent Living Units (ILUs)** and apartments, and 5,000 serviced apartments. Approximately 6,500 new units (excluding OYO units) have been developed since 2013, equivalent to growth of 6% per year.



A further **14,700** new units (excluding Own Your Own units) are planned over the next 7-8 years (or approximately **1,900** units per year). This annual growth is approximately **5%-6%** of the annual growth in private dwellings forecast across New Zealand in 2019 and 2020. Retirement villages are built as long term assets and will continue to provide housing options for the 75+ age group well into the future.



Statistics New Zealand predicts that the population of New Zealanders who are in the 75+ age group will grow from 6% of the total population in 2016 (295,000 people) to 10% of the total population by 2033 (586,000 people), which means the demand for retirement villages is likely to grow substantially over the coming years. The rate of growth in retirement village units is forecast to outpace this growth in the 75+ age group through to 2026 (the end of the analysis period). This will be important to support the forecast growth in demand for retirement villages, as more people choose retirement village living. Penetration rates for retirement village living have been consistently increasing year-on-year since 2012.



The retirement village sector employs approximately **19,000** people across its villages to support day-to-day operations. On average, for every 100 retirement village units, there are 64 staff to support operations. Over the next 7-8 years, approximately **9,500 new jobs** will be created from construction of new villages.



In 2017, day-to-day operations in the retirement village sector added around **\$1.1b** to New Zealand's GDP, accounting for roughly **0.4%** of national GDP. This is approximately equivalent to the value add from department stores, or the motor vehicle retailing industry in 2016. Economic activities supported by day-to-day operations of the industry include: village management, administration, operations, marketing/advertising, maintenance and repairs, renovations, back office support, amongst other roles.



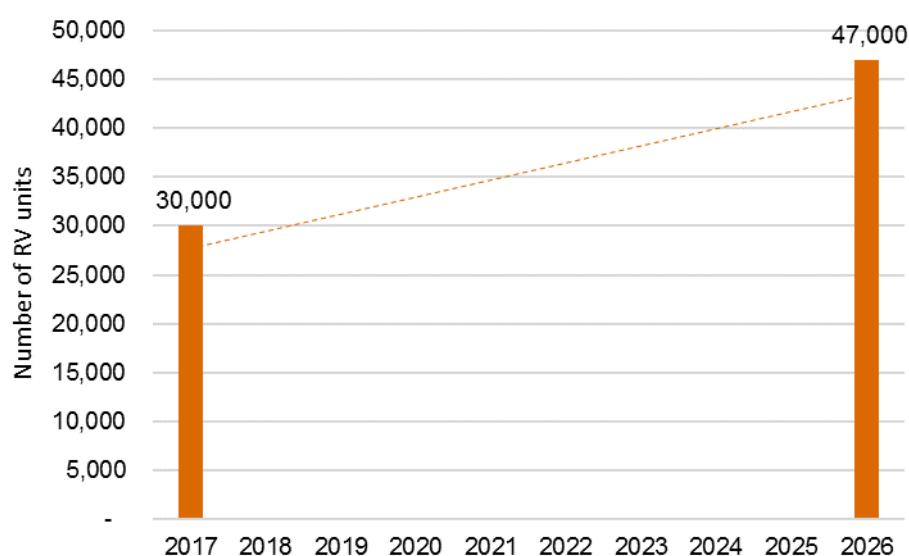
The construction of a 250 unit retirement village supports the employment of **303 FTE** across technical and professional services, trades and construction, civil works, and retailing eg hardware and furniture retail. Given the forecast construction rate of 1,900 units per annum, total retirement village construction is expected to contribute a total of **\$480m** value added towards New Zealand's GDP and support the employment of approximately **5,700 FTEs** every year after multiplier impacts are included for indirect impacts.

## 2. Executive summary

The ageing New Zealand population and increased awareness of the benefits of retirement village living mean that the retirement village sector is flourishing in New Zealand. Currently, there are an estimated 30,000<sup>1</sup> retirement village units across New Zealand, excluding Own Your Own (OYO) units. This includes approximately 25,000 Independent Living Units (ILUs) and apartments, and 5,000 serviced apartments.<sup>2</sup>

There are approximately 14,700 more units excluding OYO units in the development pipeline for completion over the next 7-8 years (to 2024/2025).<sup>3</sup> This equates to a build rate of approximately 1,900 units per annum (excluding OYO units).<sup>4</sup> This growth rate is extrapolated to 2026 in Figure 1.

**Figure 1: Forecast growth in the number of retirement village units (excluding OYO units)**



Source: CBRE; PwC analysis<sup>5</sup>

Within this context, the Retirement Villages Association of New Zealand (RVA) considered it was important from an industry-wide perspective, that research was undertaken to better understand and set the strategy for the sector's future.

The results of this research highlighted a number of benefits for residents, the sector, and the government. Key benefit areas included contributions to:

- the housing stock
- employment

<sup>1</sup> CBRE data from October 2017 identifies 33,574 total units, of which 3,482 (10.4%) are OYO units. In October 2017 the total number of units excluding OYO units was approximately 30,000 units.

<sup>2</sup> CBRE 2017. Retirement Sector Capital Value October 2017.

<sup>3</sup> CBRE data from 2017 identifies 16,400 units in the development pipeline. 10.4% of these are assumed to be OYO units, meaning the number of units in the development pipeline excluding OYO is approximately 14,700 units.

<sup>4</sup> CBRE analysis from 2017 suggests that an average build rate of 2,100 units (including OYO units) per year is likely. 10.4% in each year are assumed to be OYO, meaning the build rate excluding OYO is approximately 1,900 units per year. This build rate indicates that the total pipeline (excluding OYO units) of 14,700 units will be absorbed over the next 7-8 years.

<sup>5</sup> Figure 1 assumes that the estimated build rate of approximately 1,900 units (excluding OYO units) continues through to 2026.

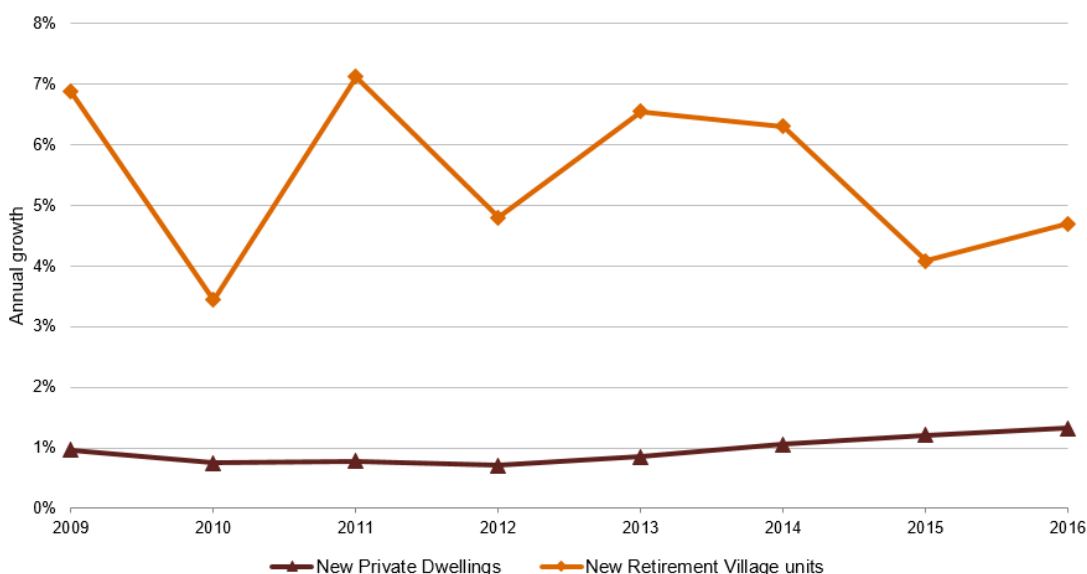
- gross domestic product (GDP).

### Housing stock

A key benefit of retirement villages is that they help ease demand on the residential housing market and assist with the housing supply shortage in New Zealand.

They do so by providing housing options for older people at a faster rate than the general level of housing stock growth. Figure 2 shows how the growth in retirement village units (excluding OYO units) has outstripped growth in new private dwellings over the 2009 – 2016 period.

**Figure 2: Percentage growth in retirement village units (excluding OYO units) vs percentage growth in residential dwellings (2009 – 2016)**



Source: CBRE, Stats NZ, PwC analysis

In particular, the construction of new retirement villages is assisting with the housing supply shortage in regions where the shortfall is greatest. As of October 2017, one third of retirement village units (excluding OYO units) are in Auckland and approximately 76% are located in major regions including Auckland, Canterbury, Wellington, Bay of Plenty and Waikato – many of the new developments are expected to keep pace with population growth of older people and meet the growing demand for a wide range of housing options.

Between 2009 and 2016, approximately 3,500 new retirement village units in total were constructed in Auckland, the highest absolute growth of any region in New Zealand by a margin of more than 100%.<sup>6</sup>

In addition, the construction of retirement villages can result in improved land use intensity and higher housing density compared with other housing developments. This is particularly true for mid to large-sized Auckland-based retirement villages. The retirement village unit and resident density is approximately 1 unit per 152 square metres, and 1 resident per 117 square metres for large-sized villages in Auckland (over 200 units). This compares to between 1 dwelling per 250 and 600 square metres, and 1 occupant per 93 – 222 square metres, for other types of housing development in some areas of Auckland (see Figure 10).

Retirement villages provide choice and a number of other housing-related benefits for older people who move into these retirement villages. These include:

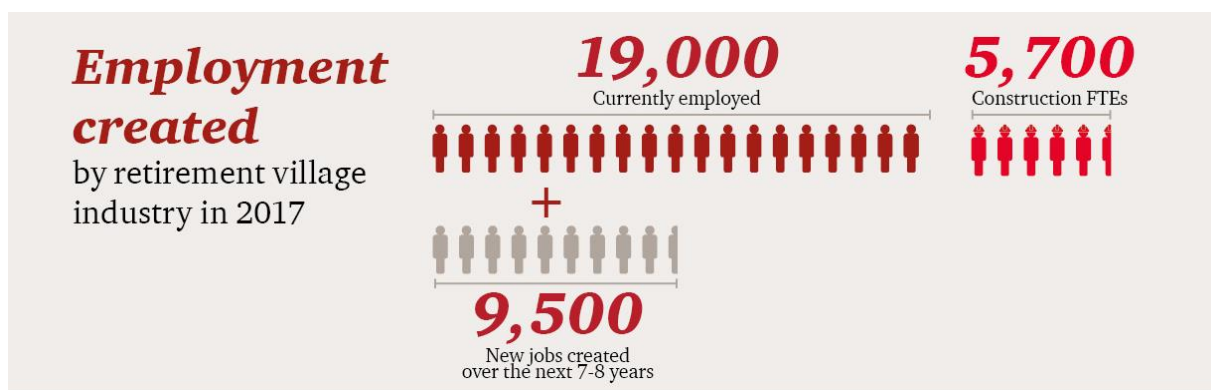
<sup>6</sup> Note that this figure does include OYO units, as these could not be separated from other units at a regional level year-by-year over the time series.

- being able to continue to live in a neighbourhood in which they always have; down-sizing to a more manageable property
- enjoying the security, companionship, and peace of mind that comes with retirement village living
- co-location with care services and home-based support (HBS) services that many retirement villages offer.

In addition, as new village units are constructed, this frees up larger homes for purchase or rent by families as older people move on.

### Employment

Retirement village operators are major employers across New Zealand, including in regional New Zealand where they offer employment opportunities for local residents. Retirement village operations create jobs in food preparation, laundry, cleaning services, repairs and maintenance, activities coordination, transport and travel, and business management. In 2017, the sector was estimated to employ approximately 19,000 people, which is comparable to the number of people employed in the residential real estate and rental sector.

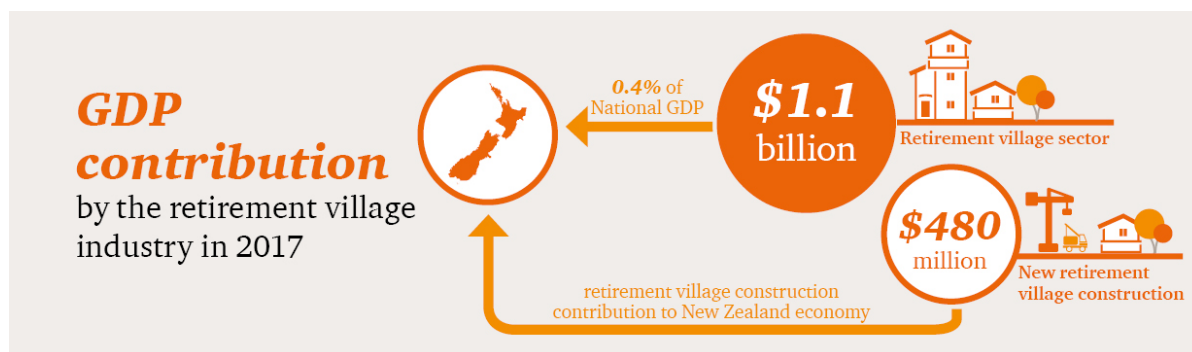


Over the next 7-8 years, the expected build rate of new villages will create approximately 9,500 new jobs to assist with the day-to-day operations of the villages.

In addition, approximately 5,700 FTEs across New Zealand (directly and indirectly through multiplier impacts) are supported through the construction of new retirement villages. Those directly supported in the construction industry represent approximately 1.2% of New Zealand’s total construction workers (estimated at 188,000 people in 2015). Construction-related employment for retirement villages is expected to be maintained at this level for the next 7-8 years.

### GDP

The retirement village sector contributes to the New Zealand economy through its demand for a variety of skillsets and roles as part of its day-to-day operations. In 2017, the retirement village industry added around \$1.1 billion to New Zealand’s GDP. This accounts for roughly 0.4% of national GDP.



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In addition, new construction activity adds value to the New Zealand economy by increasing demand for the construction and professional services industries. In 2017, retirement village construction contributed an additional \$480m of value added to New Zealand's economy.



## 3. Introduction

### 3.1 Defining the sector for retirement villages

The retirement villages industry comprises organisations that provide residential accommodation services for older people - who require minimal-to-low level assistance. Residents live independently in self-contained facilities, often in a community environment with shared facilities such as gyms, swimming pools, cinemas, communal gardens, community centres and libraries. Villages are increasingly providing a wider range of services to their residents to differentiate their offer in a competitive market. For example, some villages provide an electric vehicle fleet for their residents to use.

Retirement villages provide a secure community lifestyle for their residents. In addition to accommodation, the range of services retirement villages provide include:

- meal preparation
- laundry and cleaning services
- on-call medical support
- activities coordination
- home maintenance services
- home based support services – to village residents and potentially the wider community.

The key feature of the industry is the provision of accommodation and accommodation services to independent older people. Unlike the aged care industry, retirement villages do not provide care or inpatient services to residents, unless the retirement village is an integrated provider of services which offers independent living units and residential care (rest home, hospital, dementia, or psychogeriatric care services).

Where possible, we have excluded the component of the broader aged-care industry which relates to provision of care services from this study.

#### 3.1.1 Role of the RVA

The Retirement Villages Association (RVA) is a voluntary membership-based organisation of registered retirement village (RV) owners, developers and managers throughout New Zealand. The purpose of the RVA is wide ranging and includes provision of advice and direction to government representation of members in matters for the general benefit of the industry.

The RVA is responsible for promoting a sustainable retirement village sector for village members. It works to represent, protect and promote the interests of its members and associates, with the principal objective of promoting a quality living environment for its residents. The RVA represents more than 95% of the retirement village industry by unit number.<sup>7</sup> This study on the retirement village industry has been limited to RVA members, and is not intended to incorporate villages which are not accredited members of the RVA.

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<sup>7</sup> Source: [https://www.retirementvillages.org.New Zealand/Site/About\\_RVA/Default.aspx](https://www.retirementvillages.org.New Zealand/Site/About_RVA/Default.aspx).

## **3.2 Purpose and scope of this report**

The purpose of this report is to estimate the size of the retirement village industry in New Zealand, and consider its contribution to the national economy through:

- the housing stock
- employment impacts
- gross domestic product (GDP).

This report also considers local economy impacts for the housing stocks in the high population growth regions: Auckland, Bay of Plenty, Canterbury, Wellington, and Waikato.

The scope of this report does not incorporate quantification of the social or health benefits of retirement village living. It also excludes a comparison of alternatives to retirement village living. Accordingly, it does not seek to provide an assessment of the benefits, gross or net, of retirement village living for residents.

## **3.3 Acknowledgements**

We gratefully acknowledge the assistance of the RVA members and the RVA's staff who assisted with the provision of financial and other information for this study. We also acknowledge the assistance of CBRE who provided market data for this study.

## **3.4 Overview of approach**

This research into the housing, employment, and GDP impacts of retirement villages and their operations was completed as part of a broader research agenda. The research involved surveying all retirement villages registered with the RVA, at the principal member level. This report summarises the findings from the housing, employment, and GDP research areas.

In total we received 36 survey responses from the 112 retirement village operators we sent the survey template to, including 12 responses from multi-village operators. In total we collected data relating to the operations of 213 retirement villages.

We asked a range of questions about unit numbers, employment, income, expenses, etc. Each question involved requesting village operators to provide us financial and operational information for the last five financial years (FY13 – FY17). Please see Appendix 1 for more information on the survey methodology.

The results from survey were compiled and average unit number, employment, and financial metrics were calculated across four categories of retirement village based on size eg 1 to 50 retirement units, 51 to 100 units etc. These metrics were then extrapolated based on village size bands to take the analysis from a survey sample to the overall industry perspective.

See Appendix 2 for more information on the extrapolation methodology. Many of the figures included in this report are the results of this extrapolation.

## 4. Retirement village industry – snapshot

The purpose of this section is to provide an overview of the retirement village industry in New Zealand. It illustrates the number of villages and units which are covered by the RVA's membership base.

### 4.1 Number of retirement villages and units

According to the Registrar for Retirement Villages (part of the Ministry of Business, Innovation, and Employment) there are approximately 400 retirement villages in New Zealand.

The latest 2017 figures available from CBRE show that there are an estimated 30,000 retirement village units across New Zealand, excluding OYO units.<sup>8</sup> This includes approximately 25,000 ILUs and apartments, and 5,000 serviced apartments.<sup>9</sup>

The total number of villages and independent living units suggest that overall, the average number of units per village is 75. However, this potentially masks the diverse nature of villages across New Zealand with many small (10 or fewer units) and many large (more than 250 units) villages making up the sector.

Table 1 shows the distribution of units (excluding OYO units) across different regions in New Zealand. Unsurprisingly, one-third of the total number of retirement village units are in Auckland. However, Auckland is over-represented in terms of the regional breakdown relative to its population of people in the 75+ age group. The five regions accounting for the largest number of villages are: Auckland (33%), Canterbury (13%), Wellington (11%), Bay of Plenty (11%) and Waikato (8%). Together the top five regions comprise 76% of the total units across New Zealand (refer to Figure 3).

**Table 1: Number of retirement units (excluding OYO units) per region 2017**

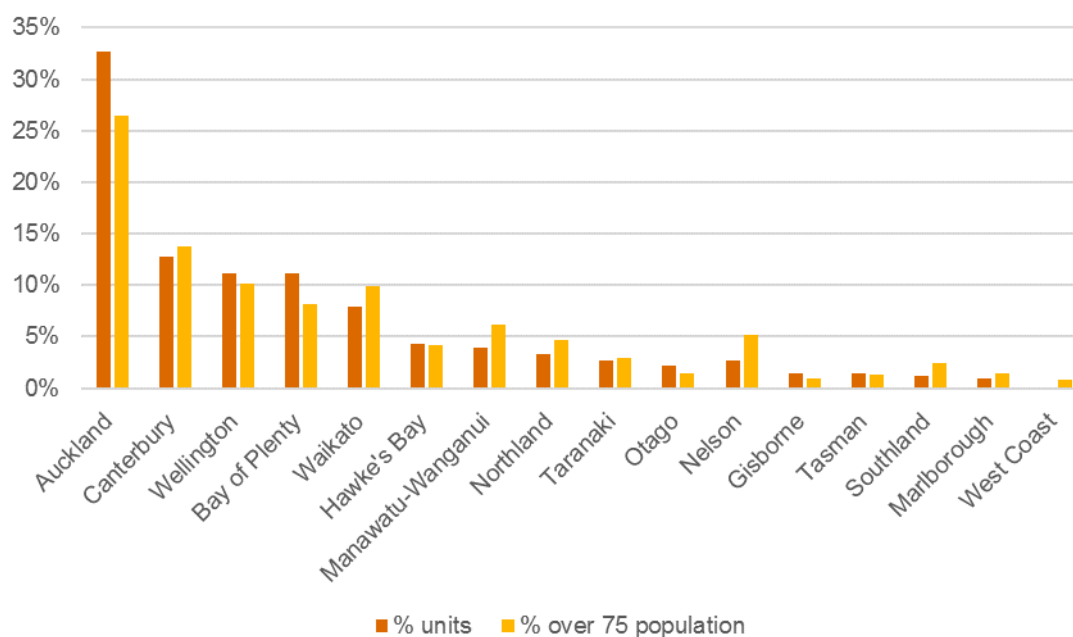
Region	ILUs	Apartments	Serviced Apartments	Total	% by units
Auckland	3,864	4,255	1,711	9,830	33%
Canterbury	2,425	399	1,032	3,856	13%
Wellington	1,969	776	630	3,375	11%
Bay of Plenty	2,530	566	243	3,339	11%
Waikato	1,938	286	165	2,389	8%
Hawke's Bay	1,052	65	191	1,308	4%
Manawatu	872	71	235	1,178	4%
Northland	776	101	127	1,004	3%
Taranaki	611	35	163	809	3%
Otago	561	155	84	800	3%
Nelson	440	51	170	661	2%
Gisborne	372	1	74	447	1%
Tasman	370	22	55	447	1%
Southland	278	14	72	364	1%
Marlborough	180	9	78	267	1%
West Coast	13	-	5	18	0%
<b>Total</b>	<b>18,251</b>	<b>6,806</b>	<b>5,035</b>	<b>30,092</b>	<b>100%</b>

Source: CBRE, PwC analysis

<sup>8</sup> CBRE data from October 2017 identifies 33,574 total units, of which 3,482 (10.4%) are Own Your Own (OYO) units. In October 2017 the total number of units excluding OYO units was approximately 30,000 units.

<sup>9</sup> CBRE. 2017. Retirement Sector Capital Value October 2017.

**Figure 3: Breakdown of retirement village unit numbers and the number of people in the 75+ age group by region 2017**



Source: CBRE, Statistics New Zealand, PwC analysis

Table 2 shows that in the Otago and Southland regions, there are 20 persons in the 75+ age group for every retirement village unit available, while in the West Coast there are 136. At the other end of the scale, there are 7 persons in the 75+ age group for every retirement village unit in Bay of Plenty, Gisborne, and Nelson. In 2017 the New Zealand average is approximately 10 persons in the 75+ age group per retirement village unit.

**Table 2: Number of people in the 75+ age group for every retirement village unit (2017)**

Region	People per unit
West Coast	136
Southland	20
Otago	20
Marlborough	16
Manawatu	16
Northland	14
Waikato	13
Taranaki	11
Canterbury	11
Hawke's Bay	10
Tasman	9
Wellington	9
Auckland	8
Bay of Plenty	7
Gisborne	7
Nelson	7

Source: CBRE, Statistics New Zealand, PwC analysis

## 4.2 Trends over time

Over recent years, there has been a rise in popularity of retirement village living in New Zealand. The number of units has increased by approximately 6,500 units (excluding OYO units) since 2013.

**Table 3: Increase in number of retirement units (excluding OYO units) and villages in New Zealand over time**

Year	Units	Villages
2017	30,092	401
2016	27,316	383
2015	26,090	376
2014	25,067	363
2013	23,580	351
2012	22,131	343
2011	21,118	Not available
2010	19,714	Not available
2009	19,058	Not available
2008	17,831	Not available

Source: Unit numbers from CBRE with PwC analysis; 2012-2016 village numbers from JLL; 2017 village number from the Registrar for Retirement Villages

## 4.3 Penetration rates

Penetration rates estimate the percentage of a population group who currently reside in retirement villages. Penetration rates have been increasing over the last four years. This indicates the increasing popularity and acceptance of retirement village living, rather than growth solely from New Zealand's ageing population. Table 4 shows that the growth in the penetration rate of the 75+ age group has been increasing between 2012 and 2017.

**Table 4: New Zealand penetration rates for the 75+ age group 2012 - 2017<sup>10</sup>**

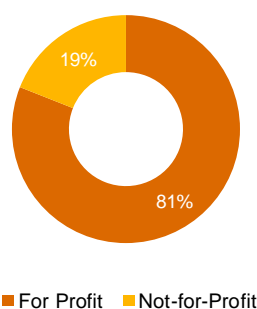
Year	Penetration rate (75+ years)
2017	12.6%
2016	12.4%
2015	12.1%
2014	12.0%
2013	10.5%
2012	9.4%

Source: 2012 – 2016 data from JLL; 2017 data from RVA

## 4.4 Organisation structure

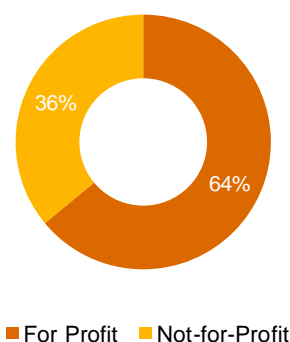
The retirement village industry is split between operators who operate as for-profit company entities and not-for-profit (NFP) providers. The split in the industry is shown in Figure 4, with companies comprising 81% of the overall number of villages, and NFP comprising 19% of the total number of villages.

<sup>10</sup> JLL, New Zealand Retirement Village Database (NZRVD) Whitepapers December 2015 & February 2017.

**Figure 4: Proportion of Companies / Not-for-Profits in New Zealand (2017)**

Source: RVA annual report 2017

The rate for NFP is lower than the breakdown of the retirement village industry in Australia. The breakdown for the industry in Australia by villages is shown in Figure 5.

**Figure 5: Proportion of Companies / Not-for-Profits in Australia (2016)**

Source: 2016 PwC / Property Council Retirement Census (Australia)

### Box 1: Retirement village living

Retirement village living provides a number of benefits to residents. Key reasons why residents move into retirement villages include:

- **Security** – with age comes a reduced ability to protect oneself from external threats which creates anxiety. This is reduced in a retirement village as residents know who their neighbours are and, furthermore, because there is a familiar demographic. In addition, occupants are protected under legislation such as the Retirement Villages Act 2003 and the Retirement Villages Code of Practice 2008.
- **Companionship** – retirement villages act as a means of establishing relationships with individuals who share similar interests. There is a strong emphasis on community through the establishment of clubs and organisation of regular group activities. This is especially important for tackling the escalating issue of social isolation for older people.
- **Peace of mind** – the assurance of “on call” medical assistance is a compelling motivation behind making the move to a retirement village. Most have nurse call alarms that are monitored 24/7 by staff. Such assurance allows for peace of mind from the fears and anxieties associated with poor health.

- **Support services** – residents of many RVA member retirement villages benefit from the availability of home-based support (HBS) services provided under contract for the DHBs. Services can include personal care, household support, and medication management.
- **Maintenance** – moving to a retirement village removes the burden of maintaining a home which can involve labour intensive tasks such as garden and home maintenance. This can be cumbersome on ageing bodies and, thus, making the move can increase quality of life.
- **Lifestyle** – as mobility becomes impaired, it becomes difficult to access necessities and facilities. This can negatively impact upon quality of life. Having all of these located in close proximity allows the individual to continue to pursue a balanced and healthy lifestyle.
- **Independence** – the move to a retirement village allows for a more independent lifestyle. Having the tasks that present difficulty and inconvenience catered for frees up time for the individual resident to pursue activities that they enjoy and find meaningful.
- **Equity release** – some residents may release significant equity in their homes, upon moving to retirement villages. This provides them with extra financial assets (savings), which can be used to enjoy their retirement.

In addition, integrated service providers can provide a seamless transition into care facilities at a future point. Residents are already familiar with the village and its occupants, so the transition from an independent unit to a care unit as part of the same village can be smoother for them.

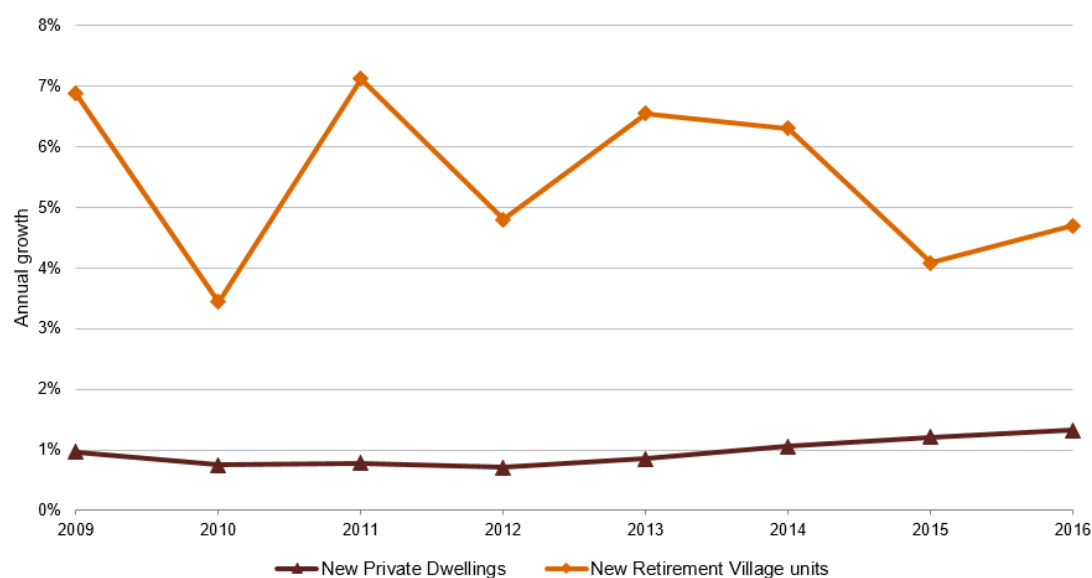
## 5. Housing stock

### 5.1 Total contribution to the New Zealand housing stock

A key benefit of retirement villages is that they help ease demand on the residential housing market, by providing housing options for older people. The current build rate of retirement villages is faster than the overall level of housing stock growth. The construction of each new retirement village unit represents a new residential dwelling for New Zealand, assisting with the housing supply shortage in New Zealand. The impact is greatest in regions where the shortfall is greatest eg Auckland as capacity constraints are most pronounced. As new village units are constructed, this opens up the broader housing market and frees up larger homes for purchase or rent by families as older people move on.

CBRE data shows that in October 2017 there were approximately 30,000 retirement village units in New Zealand (excluding OYO units).<sup>11</sup> As can be seen in Figure 6, the annual percentage growth in retirement village units has been out-pacing the annual percentage growth in the overall housing stock.

**Figure 6: Percentage growth in retirement village units (excluding OYO units) vs percentage growth in residential dwellings (2009 – 2016)**

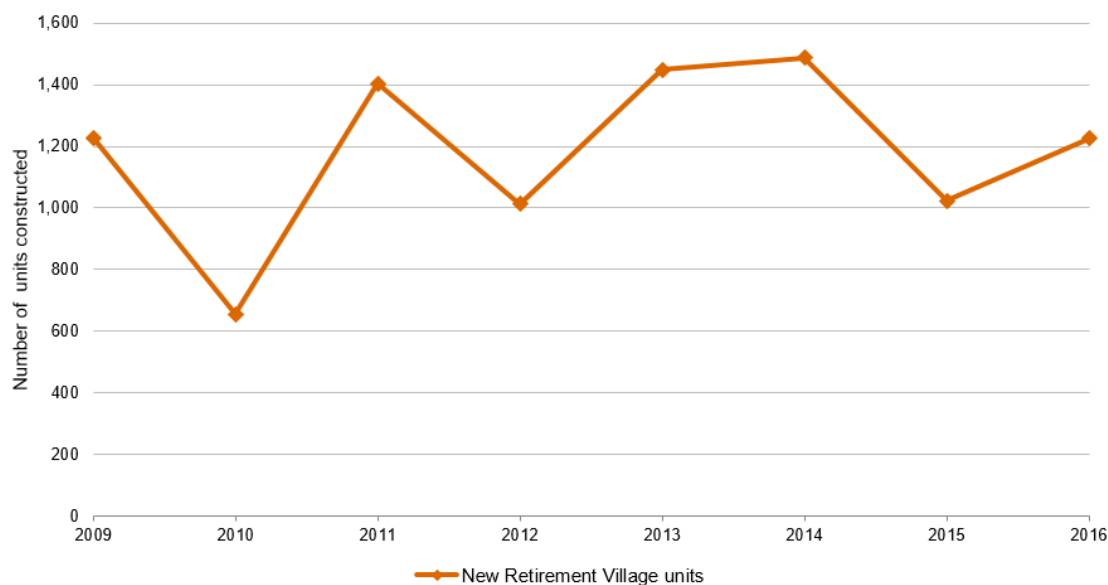


Source: CBRE, Stats NZ, PwC analysis

Over the 2009 – 2016 years, the total number of retirement village units (excluding OYO units) constructed in New Zealand was approximately 8,300 – a 43% increase.

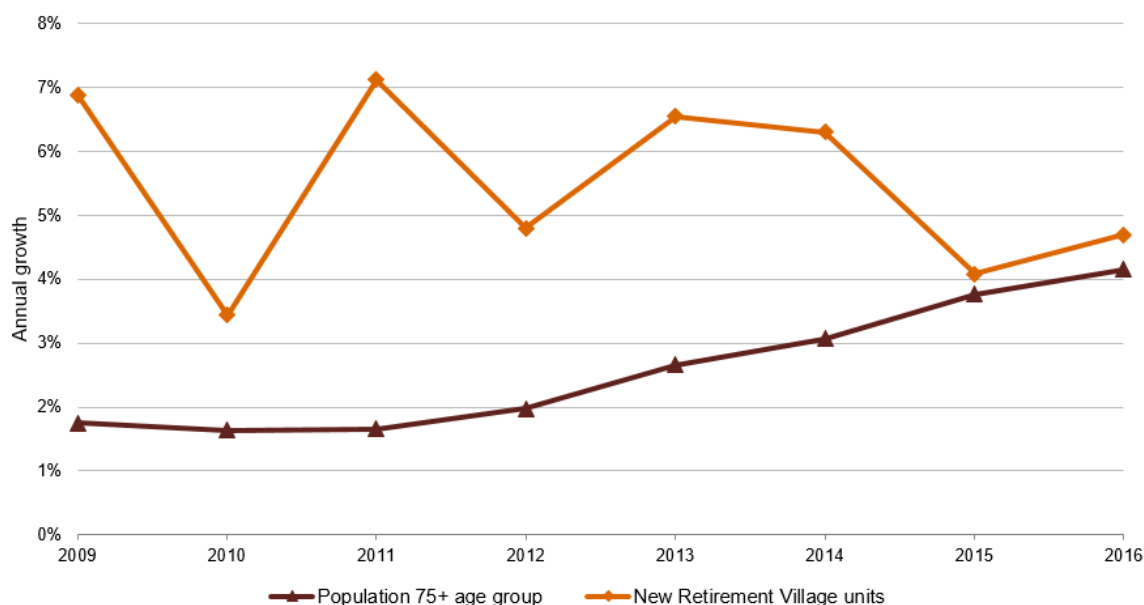
<sup>11</sup> CBRE. 2017. Retirement Sector Capital Value October 2017.



**Figure 7: Retirement village units (excluding OYO units) construction (2009 – 2016)**

Source: CBRE; PwC analysis

The retirement village build rate has been sufficient to cover the rate of growth in the ageing population. Figure 8 shows that the percentage growth in retirement village units has outpaced the percentage growth in the 75+ age group. This shows that the market for retirement village living has grown, and together with the increased penetration rates (refer to Table 4), this shows the increasing popularity and demand for units.

**Figure 8: Retirement village unit growth (excluding OYO units) vs population growth in the 75+ age group (2009 – 2016)**

Source: CBRE, Stats NZ, PwC analysis

For every 100,000 people in the 75+ age group, approximately 410 retirement village units were constructed in 2016. In 2016 there were 11 persons in the 75+ age group for every retirement village unit in New Zealand.<sup>12</sup>

## 5.2 Contribution to regional housing stocks

As of October 2017, one third of retirement village units (excluding OYO units) are in Auckland and approximately 76% are located in major regions including Auckland, Canterbury, Wellington, Bay of Plenty and Waikato – many of the new developments are expected to keep pace with population growth of older people and meet the growing demand for a wide range of housing options.

While there has been steady growth in the retirement village build rate, some regions have experienced higher growth than others. Table 5 shows that the region that has seen the greatest growth in retirement village unit numbers is Auckland (increase of 3,496 units). This is followed by Canterbury (1,541 units), Bay of Plenty (1,285 units), Waikato (1,140 units), and Wellington (1,138 units).<sup>13</sup>

**Table 5: Number of retirement village units (including OYO units) by region (2009 – 2016)**

Region	2009	2010	2011	2012	2013	2014	2015	2016	Total increase	% increase
Auckland	6,869	7,132	7,624	7,996	8,571	8,967	9,651	10,365	3,496	51%
Canterbury	2,584	2,586	2,698	2,947	3,048	3,207	3,606	4,125	1,541	60%
Wellington	2,686	2,691	2,743	2,799	2,935	3,237	3,519	3,824	1,138	42%
Bay of Plenty	2,304	2,341	2,442	2,584	2,849	3,059	3,318	3,589	1,285	56%
Waikato	2,021	2,156	2,411	2,482	2,668	2,779	2,981	3,161	1,140	56%
Hawke's Bay	1,036	1,034	1,188	1,189	1,269	1,288	1,305	1,319	283	27%
Manawatu	1,105	1,104	1,133	1,211	1,270	1,355	1,384	1,446	341	31%
Northland	554	640	751	790	868	883	930	983	429	77%
Taranaki	449	502	542	569	571	616	709	787	338	75%
Nelson	287	400	444	487	540	597	658	683	396	138%
Otago	599	599	665	690	760	855	884	915	316	53%
Gisborne	207	217	297	320	320	407	435	474	267	129%
Tasman	370	370	405	409	409	409	479	515	145	39%
Southland	174	212	212	212	240	303	320	364	190	109%
Marlborough	204	204	215	225	225	256	257	267	63	31%
West Coast	18	18	18	18	18	18	18	18	-	0%
<b>Total</b>	<b>21,467</b>	<b>22,206</b>	<b>23,788</b>	<b>24,928</b>	<b>26,561</b>	<b>28,236</b>	<b>30,454</b>	<b>32,835</b>	<b>11,368</b>	<b>53%</b>

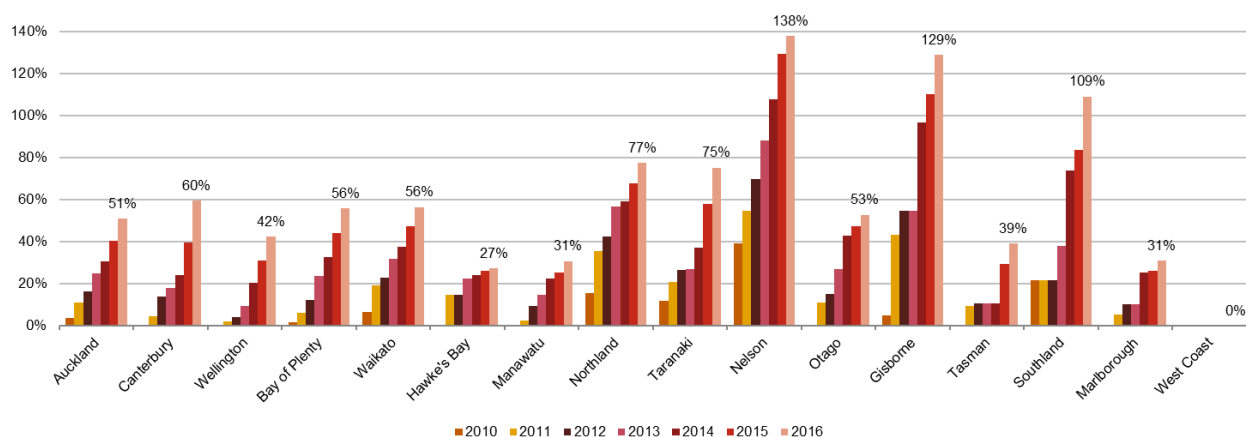
Source: CBRE; PwC analysis

Figure 9 and Table 5 shows that the regions that have grown the most since 2009, as a percentage of their retirement village stock are Nelson (138% growth since 2009), Gisborne (129% growth), and Southland (109% growth). The fastest growing regions as a percentage of retirement village stock between 2015 and 2016 were again Gisborne and Southland (although off a low base), and also Taranaki and Canterbury.

<sup>12</sup> Stats NZ population estimates 2016. CBRE RV unit numbers 2016.

<sup>13</sup> Note that these figures and those in Table 5 do include OYO units, as these could not be separated from other units at a regional level year-by-year over the time series.

**Figure 9: Percentage growth in retirement village units (including OYO units) by region (2010 – 2016); growth measured against 2009 unit numbers**



Source: CBRE, PwC analysis

### 5.3 Density of retirement village unit housing

The construction of retirement villages can result in improved land use intensity and higher housing density compared with other types of housing development. This is particularly true for mid to large-sized Auckland-based retirement villages and reflects the higher cost of land in Auckland relative to other parts of New Zealand.

We have undertaken some analysis of density data from two large operators with villages nationwide. The analysis covered 4,736 units and 18 villages in Auckland, and a total of 11,753 units<sup>14</sup> and 53 villages in New Zealand. The results show that for villages operated in Auckland the density of retirement village units and the residents living in these retirement villages is higher than the nationwide average.

**Table 6: Density of retirement village units and residents in Auckland and nationwide<sup>15</sup>**

Village location	Density of units	Density of residents
Auckland-based villages	1 unit per 164 square metres	1 resident per 127 square metres
All villages nationwide	1 unit per 273 square metres	1 resident per 208 square metres

Source: CBRE data; PwC analysis

The results also show that for villages operated in Auckland the density of retirement village units and the residents living in these retirement villages is higher for larger retirement villages (in the 200+ unit range) than for small to mid-sized villages (in the 50+ and 101-200 unit ranges).

<sup>14</sup> Equivalent units used to include care beds in the analysis, whereby 1 care bed equates to 1 equivalent unit.

<sup>15</sup> CBRE – Land area densities data received 20/12/17.

**Table 7: Density of retirement village units and residents in Auckland, for retirement villages of different sizes<sup>16</sup>**

Village size	Density of units	Density of residents
200+ units	1 unit per 152 square metres	1 resident per 117 square metres
101 – 200 units	1 unit per 197 square metres	1 resident per 152 square metres
51 – 100 units	1 unit per 191 square metres	1 resident per 151 square metres

Source: CBRE data; PwC analysis

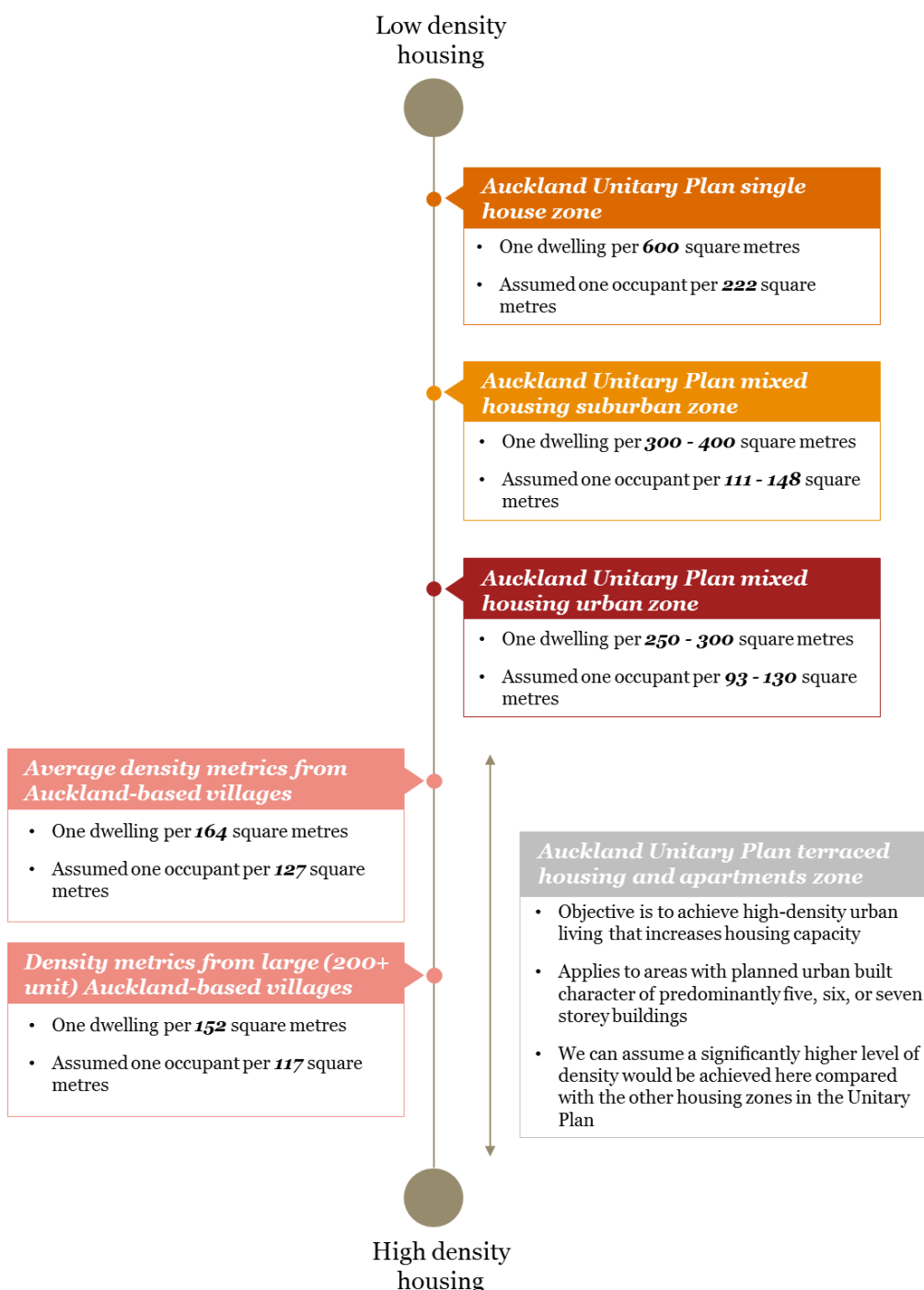
The higher price of land in Auckland provides an incentive to build at higher densities. Some of the larger Auckland-based retirement villages are multi-level developments up to six stories high. This is not observed in smaller regions, where the cost of land is a smaller proportion of the overall build cost.

We have also compared the density of housing achieved by the two large operators, and the minimum allowable density for other housing developments in different areas of Auckland as part of the Auckland Unitary Plan.<sup>17</sup> The results in Figure 10 show that the density of housing in retirement villages and the density of residents living in these retirement villages is greater than that envisaged for new housing in single housing, mixed housing suburban and urban zones, as per the Auckland Unitary Plan.

<sup>16</sup> CBRE – Land area densities data received 20/12/17.

<sup>17</sup> This simplified analysis does not consider other regulatory controls, eg height restrictions or view shafts, nor developments exceeding density maximums through the consenting process.

**Figure 10: Comparison of Auckland multi-village operator unit density with maximum density regulations in the Auckland Unitary Plan<sup>18,19</sup>**



Source: CBRE; Auckland Unitary Plan, Statistics NZ; PwC analysis

<sup>18</sup> Dwelling densities as per the Auckland Unitary Plan. There are exceptions to these rules eg in the mixed housing suburban zone for sites that meet certain size and dimension requirements, dwelling density can be up to one dwelling per 200 square metres. For sites that meet certain size and dimension requirements in the mixed housing urban zone there is no theoretical limit on the dwelling density.

<sup>19</sup> The density of occupants has been calculated by applying the average number of occupants per dwelling nationwide (2.7 occupants per dwelling) as per 2013 Census data collated by Statistics NZ.

This higher density of housing and residents in retirement villages shows that on average the intensity of land use for retirement villages is higher than many Auckland housing developments and supports growth in the housing stock in Auckland. This density analysis does not make any consideration of whether or not this level of density meets the requirements and preferences of residents. However, it is understood that many of the people in the 75+ age group who move into retirement village living are happy to be downsizing from larger houses/sections.

Table 8 summarises Auckland Council data on the percentage of land in central Auckland suburbs that falls into each zone type identified in the Auckland Unitary Plan.

**Table 8: Percentage of land in the average central Auckland suburb (across 49 suburbs) that falls into each housing zone type in the Auckland Unitary Plan<sup>20</sup>**

Housing zone	% of land in central Auckland in each type (average across 49 suburbs)
Single housing	19.0%
Mixed suburban housing	41.1%
Mixed urban housing	24.0%
Terraced housing and apartments zone	15.9%
<b>Total</b>	<b>100.0%</b>

Source: Auckland Council data; PwC analysis

This analysis shows that approximately 40% of land in an average suburb in central Auckland is zoned for mixed urban housing and terraced housing and apartments. This is an average of the proportion of land which fall under the zones in the Auckland Unitary Plan, calculated across 49 central Auckland suburbs. The planning controls for these zones have a lower maximum density than the existing density for mid to large retirement villages in Auckland. This suggests that the construction of mid to large retirement villages in central Auckland will assist in delivering the housing density that new developments in these zones aim to achieve and improves Auckland's overall land utilisation.

Delivery of additional housing for older people also brings other benefits. In some cases the land freed up can be used for redevelopment, including redevelopment at a higher level of density. However, in many cases the benefits of freeing up housing will come in the form of freeing up large multi-bedroom family homes, for occupation by families or larger groups, where previously there was only one occupant.

## 5.4 Retirement village construction outlook

### 5.4.1 Industry drivers

There are a number of external factors which influence the demand for retirement villages and future construction of new units or villages:

- Growing ageing population – New Zealand's population is ageing. Statistics New Zealand predicts that the population of New Zealand in the 75+ age group will grow from 6% of total population in 2013 to 14% of total population by 2043, which means the potential demand for retirement villages is likely to grow over the coming years.<sup>21</sup>
- Low interest rates - the construction and expansion of villages are large, capital-intensive projects and often require debt funding. Low interest rates in the previous 5-7 years have spurred growth. Anticipation of rate rises may deter developers from further investment. New Zealand Treasury

<sup>20</sup> The figures show the proportion of land falling into each zone type, for the average central Auckland suburb. They do not show the proportion of all houses in central Auckland that fall into each housing zone type. Source: <http://dataviz.thespinoff.co.nz/unitary/regions/central-auckland.html>.

<sup>21</sup> <http://www.seniortrustcapital.co.nz/about-us/why-we-invest-retirement-sector>

forecasts interest rates to remain around 2% through to June 2018 and then rise to around 3.8% by June 2021.<sup>22</sup>

- Lifestyle preferences - demand for a continuum of care during one's latter years is another driver. It is now possible for individuals to reside in retirement villages while receiving health assistance instead of being transferred to high care environments such as rest homes. This is a much more attractive lifestyle choice.<sup>23</sup>
- Health expenditure - the desire to "age in place" can reduce the demand for retirement village living, as older people may wish to stay in their existing home for as long as possible. They are supported by DHB-funded HBS services, including personal care, household support, carer support, and equipment to help them live in their own homes. However, HBS services are also delivered to residents by RVA member retirement villages contracted by the DHBs. In many cases this enable more efficient delivery of services as support staff can tend to multiple residents needs at once and in one location.

### **Box 2: Social inclusion and the benefits of village life**

Some older New Zealanders experience some degree of isolation and loneliness. This isolation and loneliness is known to have a strong relationship with poor mental and physical health outcomes for these people. This is especially true for those older people who are living in regional or remote parts of New Zealand, or who may be living some distance from their families.

Retirement villages bring older people together. Villages often have shared facilities and other opportunity for interaction with peers. In doing so they reduce the isolation and loneliness that would otherwise be felt by some of these people, thereby potentially preventing some of the negative physical and mental well-being impacts that would otherwise be experienced.

Research has found that three of the most common social advantages older people expect from transitioning into retirement village living are:

- greater opportunities for keeping active
- being around people the same age
- a better social life.<sup>24</sup>

Other research has found that the aged care environment can provide older people who are physically frail but cognitively intact with a better life than when they were living in their own homes.

A study of residents in retirement villages confirmed what many people have long-suspected: living in a community where you can chat with friends, pursue hobbies and have a support network around you makes you happier and may even help you live longer.<sup>25</sup>

<sup>22</sup> <http://www.treasury.govt.nz/budget/forecasts/prefu2017/prefu17.pdf>

<sup>23</sup> [http://www.jll.nz/new-zealand/en-gb/Research/JLL\\_NZRVD\\_2014\\_whitepaper.pdf](http://www.jll.nz/new-zealand/en-gb/Research/JLL_NZRVD_2014_whitepaper.pdf)

<sup>24</sup> Massey University, A study of the ageing in Aotearoa. 2014. Available online at: [https://www.massey.ac.nz/massey/fms/Colleges/College%20of%20Humanities%20and%20Social%20Sciences/Psychology/HART/publications/reports/ICC\\_Summary\\_Report\\_2014.pdf?CC3F1B9AE2CE105B8A36E3DE735C7D81](https://www.massey.ac.nz/massey/fms/Colleges/College%20of%20Humanities%20and%20Social%20Sciences/Psychology/HART/publications/reports/ICC_Summary_Report_2014.pdf?CC3F1B9AE2CE105B8A36E3DE735C7D81) accessed 20.11.17

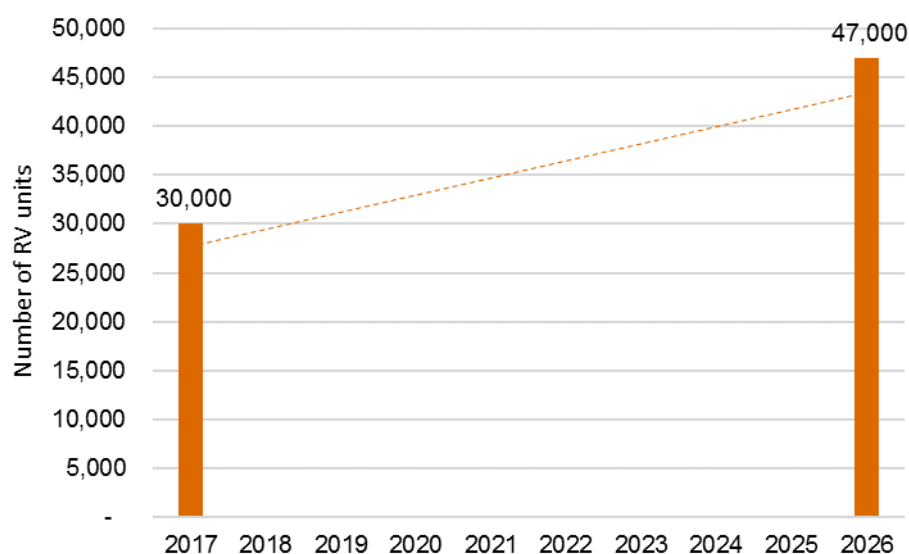
<sup>25</sup> Whiteley Village study: Cass Business School, Faculty of Actuarial Science and Insurance, City, University of London

## 5.4.2 Construction pipeline

Currently, there are an estimated 30,000<sup>26</sup> retirement village units across New Zealand, excluding OYO units. There are approximately a further 14,700 units excluding OYO units in the development pipeline for completion over the next 7-8 years to 2024/25.<sup>27</sup> This equates to a build rate of approximately 1,900 units per annum (excluding OYO units).<sup>28</sup> Extrapolating this build rate to 2026 gives the development pipeline shown in Figure 11.

In February 2018, JLL's New Zealand Retirement Village Database (NZRVD) indicated a total development pipeline of 81 new villages which represents 12,163 new units.<sup>29</sup> This is close to the CBRE figure and helps to provide additional certainty around the size of the development pipeline.

**Figure 11: Forecast growth in the number of retirement village units (excluding OYO units)**



Source: CBRE; PwC analysis<sup>30</sup>

As can be seen in Figure 12 this growth equates to a CAGR of approximately 5.1% per year.

This is much higher than the growth expected in overall residential dwellings. Over the next five years, the number of consents for private dwellings is forecast to peak at 34,500 consents annually in 2019 and 2020.<sup>31</sup> In 2019 therefore the construction of 1,900 retirement village units represents approximately 5-6%

<sup>26</sup> CBRE data from 2017 identifies 33,574 total units, of which 3,482 (10.4%) are Own Your Own (OYO) units. In 2017 the total number of units excluding OYO units was approximately 30,000 units.

<sup>27</sup> CBRE data from 2017 identifies 16,400 units in the development pipeline. 10.4% of these are assumed to be OYO units, meaning the number of units in the development pipeline excluding OYO is approximately 14,700 units.

<sup>28</sup> CBRE analysis from 2017 suggests that an average build rate of 2,100 units (including OYO units) per year is likely. 10.4% in each year are assumed to be OYO, meaning the build rate excluding OYO is approximately 1,900 units per year. This build rate indicates that the total pipeline (excluding OYO units) of 14,700 units will be absorbed over the next 7-8 years.

<sup>29</sup> JLL. New Zealand Retirement Village Database (NZRVD). 2017. Provided to PwC via the RVA.

<sup>30</sup> Figure 11 assumes that the estimated build rate of approximately 1,900 units (excluding OYO units) continues through to 2026.

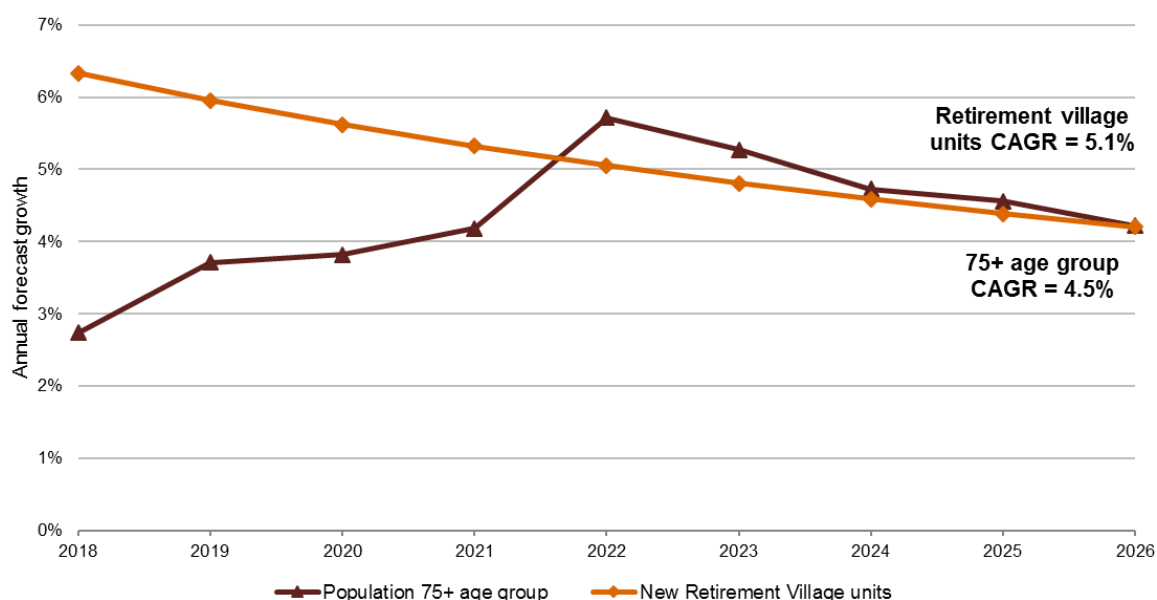
<sup>31</sup> Ministry of Business, Innovation, and Employment; BRANZ; Pacifecon. 2017. National Construction Pipeline Report 2017: A Forecast of Building and Construction Activity. [Online]. URL: <http://www.mbie.govt.nz/publications-research/research/construction-sector-productivity/national-construction-pipeline-report-2017.pdf> accessed 20.11.17.



of the growth in private dwellings.<sup>32</sup> Retirement villages are built as long term assets and will continue to provide housing options for the 75+ age group well into the future.

By growing at a rate exceeding that of total residential dwellings and consents the retirement village sector will help New Zealand's housing supply to continue to meet the needs of an increasing and ageing New Zealand population.

**Figure 12: Forecast percentage growth in retirement village unit numbers (excluding OYO units); percentage growth in the 75+ age group<sup>33</sup>**



Source: CBRE, Statistics New Zealand, PwC analysis

With a CAGR of 5.1% the growth in retirement village units is forecast to outpace growth in the 75+ age group (CAGR of 4.5%) through to 2026. This will be important to support the forecast growth in demand for retirement villages, as more people choose retirement village living.

By 2033, it is expected that 10% of New Zealanders will be in the 75+ age group, compared with 6% in 2016. By 2053, this proportion is expected to reach 14%, and reach 17% by 2068.<sup>34</sup>

<sup>32</sup> This assumes that all consented RVs and dwellings are constructed. The actual build rate will impact this percentage.

<sup>33</sup> Statistics New Zealand. 2016. National Population Projections: 2016 (base) – 2068. [Online]. URL: [http://archive.stats.govt.nz/browse\\_for\\_stats/population/estimates\\_and\\_projections/NationalPopulationProjections\\_HOTP2016/Tables.aspx](http://archive.stats.govt.nz/browse_for_stats/population/estimates_and_projections/NationalPopulationProjections_HOTP2016/Tables.aspx) accessed 30.01.18.

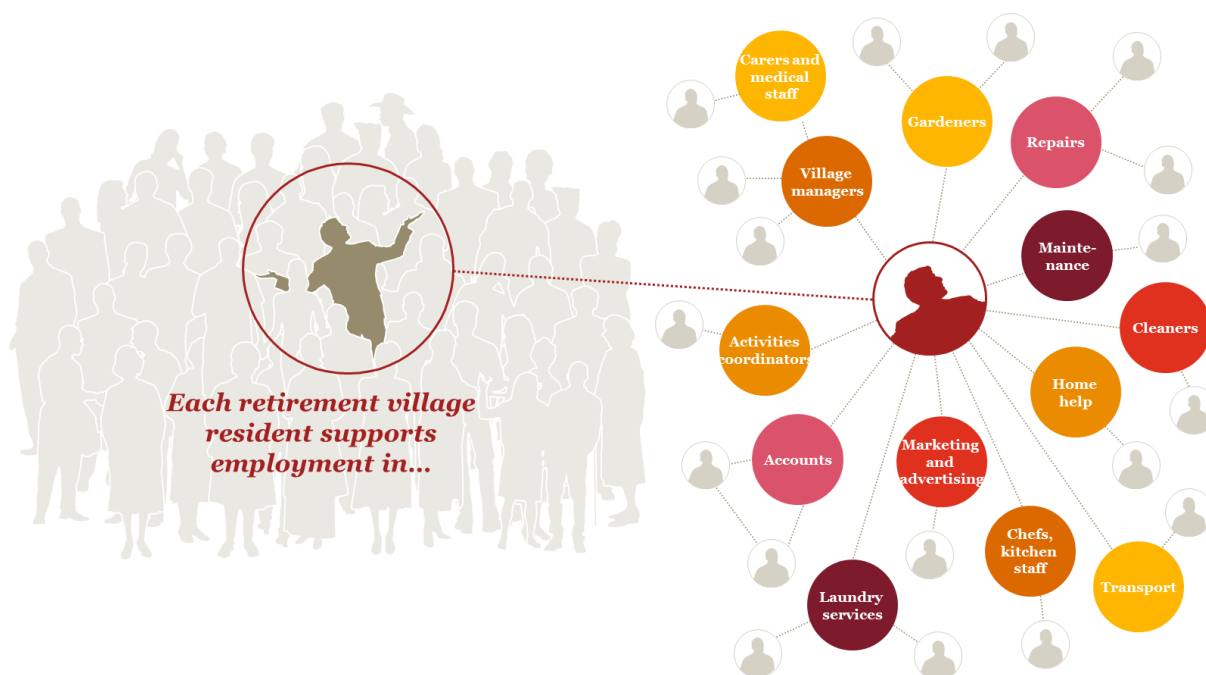
<sup>34</sup> Statistics New Zealand. 2016. National Population Projections: 2016 (base) – 2068. [Online]. URL: [http://archive.stats.govt.nz/browse\\_for\\_stats/population/estimates\\_and\\_projections/NationalPopulationProjections\\_HOTP2016/Tables.aspx](http://archive.stats.govt.nz/browse_for_stats/population/estimates_and_projections/NationalPopulationProjections_HOTP2016/Tables.aspx) accessed 30.01.18.

## 6. Employment

### 6.1 Employment from ongoing operations

The retirement village industry is a major employer in local economies and across New Zealand. It demands a variety of skillsets and roles, and provides support for jobs such as cleaners, chefs, village managers, onsite carers and medical staff, activities coordinators and accountants.

**Figure 13: Employment impacts from retirement village operations**



Based on our survey responses, on-going employment from the day-to-day operations of retirement villages is approximately 19,000 persons, which includes both full and part-time employees. This ranks 25 out of the 42 sectors in Statistics New Zealand's Business Operations Survey 2016 (in terms of employee count). It is comparable with the sectors listed in Table 9. Note that the employment figure listed for agriculture, forestry and fishing services is only one component of the broader agriculture industry.

**Table 9: Employment comparison with similar sized sectors (excludes residential care staff)**

Industry	Headcount
Agriculture, forestry, and fishing services	21,800
<b>Retirement villages</b>	<b>19,000</b>
Rental, hiring, and real estate services	19,000
Arts and recreation services	18,900

Source: Stats NZ Business Operations Survey 2016, PwC analysis

Our analysis suggests that on average in 2017 a retirement village of approximately 250 units employs a total of approximately 161 operational staff.

Salary information collected through our survey of retirement villages indicates that in 2017 almost \$840 million was paid by the retirement villages to full and part time employees across New Zealand. Table 10 shows the amount paid in salaries each year over the period 2013 – 2017.

**Table 10: Salaries paid to staff by retirement villages 2013-2017**

	2013	2014	2015	2016	2017
Salaries	\$536m	\$581m	\$687m	\$740m	\$837m

Source: PwC analysis of RVA survey data

## 6.2 Employment from construction

Retirement villages also support employment during the construction of new villages. These jobs are predominantly locally-based, which offer employment opportunities for local residents. They cover a broad spectrum of construction-related tasks, which includes construction managers, designers, architects, engineers, builders, quantity surveyors, electricians, plumbers, labourers, heavy/civil labourers, painters, decorators, and landscapers.

Using seven retirement village development project case studies from RVA members on their most recent developments, and employment multiplier tables from Butcher Partners, we have calculated the current and forecast impact of retirement village unit construction on employment in construction and related industries.

We have estimated the employment impact of retirement village construction across three types of retirement village represented by our seven case studies:

- **Type 1:** Inner city developments that are typically multi-storey up to six storeys.
- **Type 2:** Fringe metro/regional developments that are typically multi-storey apartments of two or three storeys.
- **Type 3:** Fringe metro/regional developments that are typically more sprawling and single level, often individual villas.<sup>35</sup>

We have also made the following assumptions:

- 50% of developments occurring in Auckland fit the definition of Type 1. According to CBRE data released in 2017, 29.6% of all new RV units were built in Auckland; therefore 14.8% of all RV units fall within the definition of Type 1.
- The remaining 85.2% of RV units are split equally between Types 2 and 3.

In our analysis we estimate:

- **Direct employment impacts** – the employment impacts that arise from building new retirement villages and units.
- **Indirect employment impacts** – the employment impacts that arise from the businesses directly involved in building new villages and units procuring goods and services. For example, firms in residential building construction purchase materials from retailers or wholesalers or use transport services. These are the upstream supply chain impacts.

The approach to calculating the direct and indirect impacts is included in Appendix 3.

<sup>35</sup> The challenge with using a small number of case studies is that the construction costs of outlier case studies can impact the accuracy of estimates of the construction industry spend estimate, and hence the employment numbers and value added estimates (described in later sections). There is significant variation in the nature and location of planned construction within the RV development pipeline nationwide. The nature and location of construction can have a marked impact on the costs of construction and produce these outlier case studies. Breaking RV types into the three types described helps to mitigate the impact of this, and represent the RV construction industry as accurately as possible.

Our analysis shows that every million dollars spent on retirement village construction supports the employment of 4.0 FTEs in construction and related industries. Once the indirect impacts are included, then every million dollars spent on construction supports the employment of 10.0 FTEs in total.

Based on a total retirement industry construction spend of approximately \$620 million<sup>36</sup> in 2017, we estimate that retirement village construction spend directly supported the employment of approximately 2,300 FTEs in construction and related industries. After including indirect impacts, a total of 5,700 FTEs are supported by construction of new villages each year and their supply chain impacts.

**Table 11: Total FTEs arising from retirement village construction activity and upstream impacts**

Industry	Total FTE supported in 2017		
	Direct	Indirect	Total
Scientific, architectural, and engineering services	334	200	534
Construction services	187	103	290
Residential building construction	1,562	2,874	4,436
Heavy and civil engineering construction	116	195	311
Furniture, electrical, and hardware retailing	107	30	137
<b>Total FTE impact from construction activity</b>	<b>2,306</b>	<b>3,402</b>	<b>5,708</b>

Source: PwC analysis

In December 2015 the total estimated number of construction workers in New Zealand was 188,000 people.<sup>37</sup> Assuming a similar sized workforce in 2017, construction of retirement villages accounted for approximately 1.2% of all construction worker employment in 2017.<sup>38</sup>

### Box 3: Employment impacts of a 250 unit village

Our analysis also shows that the construction a retirement village of size 250 units directly supports the employment of 303 FTE, comprising:

- 44 engineers, quantity surveyors, architects, and other technical and business professionals
- 230 builders and other tradesmen, building managers, suppliers of building materials, and those involved in land subdivision and site preparation<sup>39</sup>
- 15 heavy labourers delivering civil works including site drainage and road construction
- 14 people working in furniture, fittings, and equipment retailing and installation.

This excludes the indirect impacts of increased spending by suppliers to the construction of new retirement villages (ie it excludes upstream supply chain impacts). If we include these indirect impacts

<sup>36</sup> Described in Section 7.2.

<sup>37</sup> The 188,000 figure includes those who are in construction-related industries, who are working directly on construction activities. For example, it includes architects and engineers etc who are mostly employed in the professional services industry. This figure also relates to the total construction industry, not just the residential construction industry. The construction of retirement villages would have accounted for a larger proportion of all residential construction worker employment in 2017. Ministry of Business, Innovation, and Employment. 2016. Future Demand for Construction Workers: Projections from the National Construction Occupations Model. [Online]. URL: <http://www.mbie.govt.nz/publications-research/research/construction-sector-productivity/future-demand-for-construction-workers.pdf> accessed 20 November 2017.

<sup>38</sup> Only the direct FTE impacts (as per Table 6) are included in this calculation. In addition, local government administration services, and furniture, electrical, and hardware retailing services are excluded, as these are not considered to fit the definition of construction workers or services related to the construction of new villages.

<sup>39</sup> Employment impacts of spend in construction services and residential building construction categories combined.

then the total number of FTEs supported in the economy as a result of constructing a 250 unit retirement village increases to 751 FTE.

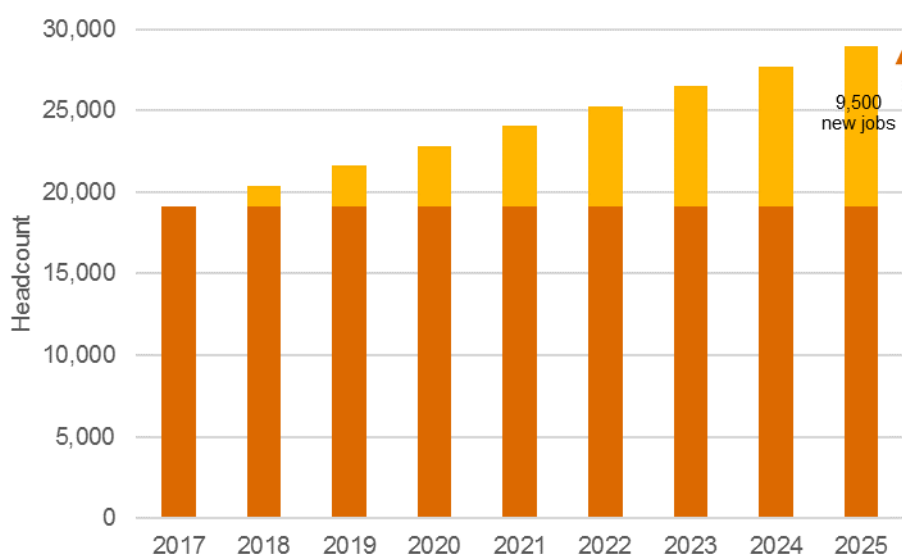
Some of New Zealand's larger and multi-facility retirement villages employ their own in-house staff to support construction projects. These include construction managers, designers, architects, quantity surveyors, and construction health and safety managers. Construction projects create additional demand for procurement and finance capability, and as many retirement villages undertake their own construction projects, this increases the size of these teams. Note that these staff have been included in the headcount of employees from day-to-day operations.

## 6.3 Employment outlook

### 6.3.1 Employment from day to day operations

As indicated in Section 5.4.2 the forecast annual build of retirement village units is approximately 1,900 units per annum over the next 7-8 years. For every 100 retirement village units, on average, there are 64 people employed to support the retirement villages' operations. There are approximately 14,700 retirement village units in the pipeline, creating over 9,500 new jobs over that timeframe. By 2023, approximately 29,000 people will be directly employed by retirement villages in New Zealand to support their day-to-day operations.

**Figure 14: Projected employment in retirement villages**



Source: CBRE, PwC analysis

### 6.3.2 Employment from construction of new villages

Given the level of retirement village construction in 2017 is forecast to continue, we can expect retirement village construction to continue making up a significant portion of the total New Zealand construction industry.

As noted in section 6.2, we estimate that the total impact on employment in the construction sector and related sectors such as scientific, architectural and engineering services, furniture, electrical and hardware retailing and the upstream industries which supply these industries will be approximately 5,700 FTEs per annum between 2018 and 2025.

# 7. GDP and construction value added

## 7.1 Industry contribution to value added

As discussed in the previous section, the retirement village industry contributes actively to the New Zealand economy through its demand for a variety of skillsets and roles as part of its day-to-day operations and through new construction activity. Economic activities supported by day-to-day operations of the industry include village management, administration, operations, marketing/advertising, maintenance and repairs, renovations etc. In addition, new construction activity further supports roles such as builders, architects, and engineers. This all adds up to stimulate strong economic activity for national and local economies.

As seen in Table 12, the retirement village industry added around \$1.1 billion in GDP to the New Zealand economy in 2017, which accounts for roughly 0.4% of national GDP.

**Table 12: Value added of the retirement villages industry 2013-2017**

\$	2013	2014	2015	2016	2017
GDP	562m	658m	701m	952m	1,069m

Source: PwC analysis

The industry has grown rapidly over the last few years. Between 2013 and 2017, the industry's value added has grown by just under two and a half times (in nominal terms).<sup>40</sup>

The industry generates value added to New Zealand's economy similar to the sectors listed in Table 13.

**Table 13: GDP comparison with similar sized sectors**

Industry	GDP (\$)
Defence	1,149m
Department Stores	1,099m
<b>Retirement villages</b>	<b>1,069m</b>
Motor vehicle retailing	1,063m
Printing	1,049m

Source: PwC Regional Industry Database 2016, PwC analysis

## 7.2 Retirement village construction spend

We have estimated the total spend on retirement village construction across the three types of retirement village outlined in Section 6.2. The average cost of construction of our retirement village case studies ranged between \$28m and \$114m and the size of the developments ranged between 69 units and 418 units.

Extrapolating from our seven case studies to the total retirement village development pipeline gives a total retirement village construction spend in 2017 of approximately \$620 million (refer to Section 6.2 for outline of how we have applied the information from the case studies).<sup>41</sup>

In 2016, the total value of gross fixed capital formation in the residential building industry was approximately \$20 billion (the equivalent value for the total construction industry is \$34 billion when non-

<sup>40</sup> Value added or contribution to GDP, is the total returns to labour plus returns to capital. Addition of taxes on production, less subsidies for production, to value added is equal to GDP.

<sup>41</sup> Council development contributions and consent fees have been excluded from this analysis.

residential building and infrastructure are included).<sup>42</sup> Assuming a similar level in 2017, the spend on retirement village construction above represents 3.1% of the total fixed capital formation in the residential building industry in 2017 (or 1.8% in the total construction industry).

### 7.3 Value added from construction

We have estimated the value added impact of retirement village construction. Value added differs from expenditure (or gross output) as it considers the cost of intermediate inputs. We have used the seven retirement village development project case studies from RVA members and value added multiplier tables from Butcher Partners.

For every million dollars spent on retirement village construction in 2017, the contribution to direct value added was \$262,000. After including indirect impacts, value added from construction was equivalent to \$773,000 per million of construction spend. In 2017, overall retirement village construction directly contributed approximately \$162m to New Zealand value added. After including indirect impacts, value added from construction activity and upstream impacts contributed a total of approximately \$480m to New Zealand value added. Table 14 shows the breakdown of value added across the six industries that experience the greatest impact.

**Table 14: Total value added to the New Zealand economy by new retirement village-related construction and upstream supply chain impacts in 2017**

Industry	Total value added in 2017		
	Direct	Indirect	Total
<b>Scientific, architectural, and engineering services</b>	\$36.4m	\$21.0m	\$57.4m
<b>Construction services</b>	\$12.9m	\$11.0m	\$23.9m
<b>Residential building construction</b>	\$92.9m	\$261.1m	\$354.0m
<b>Heavy and civil engineering construction</b>	\$14.0m	\$21.0m	\$35.0m
<b>Furniture, electrical, and hardware retailing</b>	\$6.5m	\$3.6m	\$10.0m
<b>Total value added from construction activity</b>	<b>\$162.6m</b>	<b>\$317.7m</b>	<b>\$480.4m</b>

Source: PwC analysis

<sup>42</sup> Gross fixed capital formation in the residential building industry is measured as the “value of work done” which is intended to capture a more complete picture of construction value than consent values. Ministry of Business, Innovation, and Employment; BRANZ; Pacifecon. 2017. National Construction Pipeline Report 2017: A Forecast of Building and Construction Activity. [Online]. URL: <http://www.mbie.govt.nz/publications-research/research/construction-sector-productivity/national-construction-pipeline-report-2017.pdf> accessed 20.11.17.

**Box 4: Value added impact of a 250 unit village**

Our analysis also shows that the construction of a retirement village of size 250 units directly contributes approximately \$21.4 million to the economy, comprising:

- \$4.8 million in engineering, quantity surveying, architectural, and other technical and business professional services
- \$13.9 million in building and other trades, building management, building materials supply, and subdivision and site preparation services<sup>43</sup>
- \$1.8 million in civil works including site drainage and road construction services
- \$0.9 million in furniture, fittings, and equipment retailing and installation services.

This excludes the indirect impacts of increased spending by suppliers to the construction of new retirement villages (ie it excludes upstream supply chain impacts). If we include these indirect impacts then the total value contributed to the economy as a result of constructing a 250 unit retirement village increases to \$63.2 million.

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<sup>43</sup> GDP impacts of spend in construction services and residential building construction categories combined.



# Appendix 1 – Survey methodology

We constructed a survey that was sent out to RVA members with the goal of obtaining insights into four research areas (RA). The results of three of these research areas are summarised in this report. They include:

1. (RA1) The impact of RVs on employment ie the total number of jobs created by RVs across New Zealand
2. (RA3) The total contribution of RVs to New Zealand's gross domestic product (GDP)
3. (RA4) The impact of RVs on the housing stock ie the number of RV units constructed and owned by RVs.

To investigate RA1:

- We asked villages to provide a breakdown of full-time, part-time and contracted employees, where possible, at the headcount and FTE levels – for day-to-day operations and activities related to construction.

To investigate RA3:

- We asked villages to provide information for the last five financial years, where possible, on the following financial items:
  - Total revenue
  - Total operating expenditure
  - Total salaries, including Kiwisaver and student loan contributions
  - Total rents paid eg on land/buildings
  - Profit before income tax and any shareholder distributions
  - Value of total asset base.
- To investigate RA4:
  - We asked villages to provide a breakdown of retirement villages by geographical region and type of unit. The geographical regions specified were:
    - Auckland
    - Bay of Plenty
    - Canterbury
    - Gisborne
    - Hawkes Bay
    - Manawatu – Wanganui
    - Nelson/Tasman/Marlborough
    - Northland

- Otago
  - Southland
  - Taranaki
  - Waikato
  - Wellington.
- The types of units specified were:
    - Independent living units
    - Assisted living units eg services apartments
    - Care units (all types).

For an overview of the survey methodology for the tax research area (RA2) please see our supplementary report *Taxes paid by retirement villages in New Zealand*.

## Survey responses

We received 36 responses from the 112 retirement village operators we sent the survey template to. The number of operators by size is listed in Table 15.

**Table 15: Number of operators who provided responses, broken down by size**

Size band	Total no. operators
0 to 50	12
51 to 100	2
101 to 200	6
200+	4
Multi-village operator	12
<b>Total</b>	<b>36</b>

The 12 multi-village operators provided responses for a total of 189 villages, therefore the total number of retirement villages our data relates to is 213. The number of villages by size is listed in Table 4.

**Table 16: Number of villages covered by responses, broken down by size**

Size band	Total no. villages
0 to 50	94
51 to 100	46
101 to 200	45
200+	28
<b>Total</b>	<b>213</b>

## Appendix 2 – Extrapolation methodology

Based on our sample set of responses, we then extrapolated the results to estimate the entire sector. For each item, we extrapolated results by five size categories:

- 0 to 50 units
- 51 to 100 units
- 101 to 200 units
- 200+ units
- Multi-village operator (all sizes).

A point of note here, is that the 0 to 200+ categories refer to single-village operators, whereas the multi-village operator category refers to those operating more than one village. The split between single and multi-village operators was made due to the fact that the size difference between the two was often substantial, and extrapolating the results based on an average between them would result in biased results.

In terms of our methodology in performing the extrapolations, we isolated the survey results for single and multi-village operators in our calculations. This was to prevent multi-village outliers from biasing the results, which would have occurred if the survey results were treated as a single pool. By isolating into separate sets, we therefore extrapolated results for single-villages with single-village sample data, and multi-village operators with multi-village data.

For the single-villages, we then calculated the averages for each survey item at its associated categorisation level, and extrapolated for the sector by multiplying the averages with the number of single-village operators, based on data supplied by the RVA.

For multi-village operators, a different approach was taken. This was because that even within this category, there were several operators who operated at a vastly larger scale than the others. An average of this group would therefore have reflected the presence of outliers and would not have provided an accurate representation. To counter this, we instead based our extrapolation on data supplied by the RVA, which allowed us to calculate the proportion of multi-village operators we had received survey responses from to the number of multi-village operators registered with the RVA. We extrapolated the number of RV units associated with the villages from our survey subset using the number of units associated with the total number of multi-village operators.

To perform the final step of extrapolation, we took the total for each survey item based on the responses we received, and scaled them up for the proportion of units we had not received responses from. For example, if total revenue for multi-village operators that responded to our survey was \$1 billion, and the proportion of RV units associated with these villages compared with the total number of multi-village RV units in the sector was 70%, we would take the \$1 billion and multiply it by a factor of 1.43 ( $1/0.7$ ) to scale the results up.

Finally, we add the extrapolated results from the single and multi-villages together to produce extrapolated figures for each survey item.

# Appendix 3 – Economic impact approach

## Overall approach

We have estimated two measures of the retirement villages contribution to New Zealand's economy through construction of new villages:

- **Value added** – the contribution to New Zealand's GDP, which is calculated as the total returns to labour and capital in the industry.
- **Employment** – the number of FTEs employed as a result of the construction of new villages.

In our approach, these are estimated as derivatives of expenditure on design, architecture and construction services and are the **direct** economic impacts of the Series.

In addition to its direct economic impacts, there are flow-on or indirect effects elsewhere in the economy.

In order to do business, firms must purchase inputs from other industries. **Flow-on or indirect impacts** occur when businesses involved in design, engineering and construction purchase goods and services from other industries. For example, a construction firm will need to buy wood and steel, and hire equipment, procure vehicles etc. The impact of supporting businesses is included as indirect impacts.

The **total economic impact** of the industry is the sum of its direct and indirect impacts.

## Input output multiplier analysis

In order to estimate the direct, indirect and total economic impacts of construction of new villages, we have used multiplier analysis, using multiplier tables from Butcher Partners.

Economic impact analysis involves analysis estimation of the total economic impact of an event or industry, through analysis of the event or industry's expenditure.

This involves estimating how a change in demand for goods and services in one industry, creates demand in other industries and the economy as a whole. These relationships are characterised by input-output tables, from which input-output multipliers are derived. The multipliers characterise the sector-by-sector average change in output required, when there is extra demand. Applying the GDP and employment multipliers to the actual expenditure associated with construction of new villages on designers, architects, engineers, quantity surveyors, construction firms etc, generates an estimate of the direct and total economic impact.

We estimate the direct impact of construction of new villages in terms of its contribution to value added and employment as follows:

1. Obtain expenditure data for seven case study budgets for recent village developments in New Zealand.
2. Match expenditure categories to input-output multiplier categories.
3. Adjust expenditure data for wholesale/retail margins.
4. Apply the ratios of direct value added (VA) to gross output (GO) and VA (or GO) to employment in these industries. These ratios were then used to estimate direct GDP and full-time equivalent employment (FTE) for each category.
5. Apply the ratios for indirect impacts for VA and employment.
6. Add together the direct and indirect impacts to estimate total GDP and FTE impacts.

## Appendix 4 – Restrictions

This report on retirement village contribution to housing, employment, and GDP in New Zealand has been prepared for the Retirement Villages Association. This report has been prepared solely for this purpose and should not be relied upon for any other purpose.

This report has been prepared solely for use by Retirement Villages Association and may not be copied or distributed to third parties without our prior written consent.

To the fullest extent permitted by law, PwC accepts no duty of care to any third party in connection with the provision of this Report and/or any related information or explanation (together, the “Information”). Accordingly, regardless of the form of action, whether in contract, tort (including without limitation, negligence) or otherwise, and to the extent permitted by applicable law, PwC accepts no liability of any kind to any third party and disclaims all responsibility for the consequences of any third party acting or refraining to act in reliance on the Information.

Our report has been prepared with care and diligence and the statements and opinions in the report are given in good faith and in the belief on reasonable grounds that such statements and opinions are not false or misleading. In preparing our report, we have relied on the data and information provided by RVA members as being complete and accurate at the time it was given. The views expressed in this report represent our independent consideration and assessment of the information provided.

No responsibility arising in any way for errors or omissions (including responsibility to any person for negligence) is assumed by us or any of our partners or employees for the preparation of the report to the extent that such errors or omissions result from our reasonable reliance on information provided by others or assumptions disclosed in the report or assumptions reasonably taken as implicit.

We reserve the right, but are under no obligation, to revise or amend our report if any additional information (particularly as regards the assumptions we have relied upon) which exists at the date of our report, but was not drawn to our attention during its preparation, subsequently comes to light.

We have relied on forecasts and assumptions about future events which, by their nature, are not able to be independently verified. Inevitably, some assumptions may not materialise and unanticipated events and circumstances are likely to occur. Therefore, actual results in the future will vary from the forecasts upon which we have relied. These variations may be material.

This report is issued alongside our supplementary report *Taxes paid by retirement villages in New Zealand*, pursuant to the terms and conditions set out in our engagement letter dated 15 September 2017.